

303 R100 1'



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

D4764-5

Job Sheet 199288



Part No: D4764-5

Job Qty: 20 pcs

Part Name: Bushing



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 8/16/19

Job Tracking No:

Due Date: 8/30/19

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV B SHEET 2 IPP REV:A NEW ISSUE 13-03-27 JLM VERIFIED BY:DD IPP REV:B 13.11.14 AS PER  
DWG REV.B DD VERF:JLM

Ship Via:

## Bill of Materials

## Job Routing

| Op<br>No | Operation                   | Qty    | Start Date | Due<br>Date | Standard     |            | Workcenter/Supplier   |           | Sign-off   |
|----------|-----------------------------|--------|------------|-------------|--------------|------------|-----------------------|-----------|------------|
|          |                             |        |            |             | Setup<br>Hrs | Run<br>Hrs | Workcenter / Supplier | Lead Time |            |
| 100      | Hardinge - 1                | 20 pcs | 8/30/19    | 8/30/19     | 0.50         | 1.52       | Hardinge - 1          |           | OK 8/10/19 |
| 120      | QC 8                        | 20 pcs | 8/30/19    | 8/30/19     | 0.00         | 0.00       | QC 8 - 12             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 14             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 17             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 20             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 25             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 3              |           |            |
|          |                             |        |            |             |              |            | QC 8 - 32             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 33             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 35             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 39             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 4              |           |            |
|          |                             |        |            |             |              |            | QC 8 - 44             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 45             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 49             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 58             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 8              |           |            |
|          |                             |        |            |             |              |            | QC 8 - 9              |           |            |
|          |                             |        |            |             |              |            | QC 8 - 68             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 67             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 1 (A)          |           |            |
|          |                             |        |            |             |              |            | QC 8 - 47             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 40             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 52             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 23             |           |            |
|          |                             |        |            |             |              |            | QC 8 - 57             |           |            |
| 130      | Packaging 3-1 - Stock - B4B | 20 pcs | 8/30/19    | 8/30/19     | 0.00         | 0.00       | Packaging 3 - 1 - B4B |           |            |
|          |                             |        |            |             |              |            | Packaging 3 - 2 - B4B |           |            |
|          |                             |        |            |             |              |            | Packaging 3 - 3 - B4B |           |            |
|          |                             |        |            |             |              |            | Packaging 3 - 4 - B4B |           |            |

Dart Aerospace Ltd.  
1270 Aberdeen Street  
Hawkesbury, ON K6A 1K7  
CANADA  
TEL.: 1 613 632-5200  
Email: sales@dartaero.com  
www.dartaero.com



Container No: S213772



Part: D4764-5

Job No: 199288

Serial No/Batch: S213772

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Date: 08/16/19

Plex 8/16/19 12:31 PM Dart.lajeunesse.marie

|     |            |        |         |                        |                 |
|-----|------------|--------|---------|------------------------|-----------------|
|     |            |        |         | Packaging 3 - 5 - B4B  |                 |
|     |            |        |         | Packaging 3 - 6 - B4B  |                 |
|     |            |        |         | Packaging 3 - 7 - B4B  |                 |
|     |            |        |         | Packaging 3 - 8 - B4B  |                 |
|     |            |        |         | Packaging 3 - 9 - B4B  |                 |
|     |            |        |         | Packaging 3 - 10 - B4B |                 |
|     |            |        |         | Packaging 3 - 11 - B4B |                 |
|     |            |        |         | Packaging 3 - 12 - B4B |                 |
|     |            |        |         | Packaging 3 - 13 - B4B |                 |
|     |            |        |         | Packaging 3 - 14 - B4B |                 |
|     |            |        |         | Packaging 3 - 15 - B4B |                 |
|     |            |        |         | Packaging 3 - 16 - B4B |                 |
|     |            |        |         | Packaging 3 - 17 - B4B |                 |
|     |            |        |         | Packaging 3 - 18 - B4B |                 |
|     |            |        |         | Packaging 3 - 19 - B4B |                 |
|     |            |        |         | Packaging 3 - 20 - B4B |                 |
|     |            |        |         | Packaging 3 - 21 - B4B |                 |
|     |            |        |         | Packaging 3 - 22 - B4B |                 |
|     |            |        |         | Packaging 3 - 23 - B4B | PC SF114        |
|     |            |        |         | Packaging 3 - 24 - B4B |                 |
|     |            |        |         | Packaging 3 - 25 - B4B |                 |
|     |            |        |         | Packaging 3 - 26 - B4B |                 |
|     |            |        |         | Packaging 3 - 27 - B4B |                 |
|     |            |        |         | Packaging 3 - 28 - B4B |                 |
|     |            |        |         | Packaging 3 - 29 - B4B |                 |
|     |            |        |         | Packaging 3 - 30 - B4B |                 |
|     |            |        |         | Packaging 3 - 31 - B4B |                 |
|     |            |        |         | Packaging 3 - 32 - B4B |                 |
|     |            |        |         | Packaging 3 - 33 - B4B |                 |
|     |            |        |         | Packaging 3 - 34 - B4B |                 |
|     |            |        |         | Packaging 3 - 35 - B4B |                 |
|     |            |        |         | Packaging 3 - 36 - B4B |                 |
| 140 | QC 21 - SA | 20 pcs | 8/30/19 | 0.00 0.00              | QC 21 - SA - 21 |
|     |            |        |         |                        | QC 21 - SA - 70 |
|     |            |        |         |                        | QC 21 - SA - 53 |

SEP 23 2019 DAS  
70  
9-89

Part Op 100 - Hardinge - 1-TURN AS PER FOLIO FB180 & DWG  
 Descriptions: 120 - QC8- Inspect parts - second check  
 130 - Identify as per dwg & Stock Location:  
 140 - QC21- Final Inspection - Work Order Release

## Job BOM

| Part / Item | Component Name     | Quantity                    | Operation        | Container |
|-------------|--------------------|-----------------------------|------------------|-----------|
| M303R1.000  | 303 Round Bar 1.00 | 1.2500 ft (.0625 ea)<br>070 | 100-Hardinge - 1 | 3178000   |

## Job Allocations

| Operation        | Component Part | Required | Inventory | Allocated |
|------------------|----------------|----------|-----------|-----------|
| 100-Hardinge - 1 | M303R1.000     | 1        | 42        | 0         |

| Part Specifications |             |                                |                       |          |                  |
|---------------------|-------------|--------------------------------|-----------------------|----------|------------------|
| Spec No             | Description | Target/Tolerance               | Limits                | Type     | Special Comments |
| 1                   | Bushing     | 0.621Inches + 0.008<br>- 0.001 | 0.629<br>0.620        | Diameter | .6218            |
| 2                   | Bushing     | 0.075Inches ± 0.010            | 0.085<br>0.065        |          | .076             |
| 3                   | Bushing     | 0.210Inches ± 0.010            | 0.220<br>0.200        |          | .212             |
| 4                   | Bushing     | 0.750Inches ± 0.010            | 0.760<br>0.740        |          | .750             |
| 5                   | Bushing     | 0.060Inches ± 0.010            | 0.070<br><b>0.050</b> |          | .060             |
| 6                   | Bushing     | 0.010Inches ± 0.010            | 0.020<br>0.000        | Radius   | .010             |
| 7                   | Bushing     | 0.990Inches + 0.004<br>- 0.001 | 0.994<br>0.989        | Diameter | .990             |
| 8                   | Bushing     | 0.386Inches + 0.006<br>- 0.001 | 0.392<br>0.385        | Diameter | .385             |

Plex 8/16/19 12:31 PM Dart.lajeunesse.marie



Entered: \_\_\_\_\_ Date: \_\_\_\_\_

# WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

Route update only

NCR No. \_\_\_\_\_

|                                                                                                                                                                                                                                                                                                                                                                                      |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Job: _____<br>Part No. _____                                                                                                                                                                                                                                                                                                                                                         |                   | <b>DISPOSITION</b><br>Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input type="checkbox"/>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  | <b>DEPARTMENT/PROCESS</b><br>Cross tube <input type="checkbox"/><br>Small Fab <input type="checkbox"/><br>Finishing <input type="checkbox"/><br>Skid-tube <input type="checkbox"/><br>Machining <input type="checkbox"/><br>Large Fab <input type="checkbox"/><br>Eng. (Non-AW) <input type="checkbox"/><br>Prod. Eng. Coord. <input type="checkbox"/><br>Rec/Store/Packaging <input type="checkbox"/><br>Engineering <input type="checkbox"/><br>Water Jet <input type="checkbox"/><br>Supplier <input type="checkbox"/><br>Quality <input type="checkbox"/> |  |  |  |
| Date: _____                                                                                                                                                                                                                                                                                                                                                                          | Sequence #: _____ | QTY Affected: _____                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  | MRB (QS1042)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  |
| Description Work Order Deviation                                                                                                                                                                                                                                                                                                                                                     |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Disposition                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                      |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Completed By                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                      |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | Lead hand / Supervisor                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                      |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  | QC / QA Coordinator                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |  |  |  |
|                                                                                                                                                                                                                                                                                                                                                                                      |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |
| <b>Root Cause</b><br>Operator <input type="checkbox"/><br>Manufacturing Process <input type="checkbox"/><br>Equip/Tooling <input type="checkbox"/><br>Handling/Presservation <input type="checkbox"/><br>Material <input type="checkbox"/><br>Product Improvement <input type="checkbox"/><br>Process Improvement <input type="checkbox"/><br>Human Factors <input type="checkbox"/> |                   | <b>FAULT CATEGORY</b><br>Pressure/Forced <input type="checkbox"/><br>Bending <input type="checkbox"/><br>Crushing <input type="checkbox"/><br>Cracks <input type="checkbox"/><br>Crimp/Kink/Ripple/Wave/Twist <input type="checkbox"/><br>Marks/Chatter <input type="checkbox"/><br>Mislabeled <input type="checkbox"/><br>Contamination <input type="checkbox"/><br>Misaligned/off center <input type="checkbox"/><br>BOM/Route <input type="checkbox"/><br>Broken/Damage/Defect <input type="checkbox"/><br>Incomplete/Unclear Instructions <input type="checkbox"/><br>Drill Holes <input type="checkbox"/><br>Fit/Function <input type="checkbox"/><br>Power Loss/Surge <input type="checkbox"/><br>Folio/Program <input type="checkbox"/><br>Grain Direction <input type="checkbox"/><br>Weld <input type="checkbox"/><br>Wrong Stock Pulled <input type="checkbox"/><br>Out of Sequence <input type="checkbox"/><br>Off-set/Set-up <input type="checkbox"/><br>Positioned Wrong <input type="checkbox"/><br>Outside Tolerance <input type="checkbox"/><br>Drawing <input type="checkbox"/><br>Finish <input type="checkbox"/><br>Part Lost/Missing <input type="checkbox"/><br>Misread <input type="checkbox"/> |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |
| Other/Details: _____                                                                                                                                                                                                                                                                                                                                                                 |                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |  |  |  |